Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method of creating a fault-inducing transaction representation in a network, the method comprising:

interjecting a pattern with fault-inducing sub-fields, where the pattern is an expression including a literal string and a wildcard character class, wherein interjecting the pattern comprises at least one of the following: providing alternative character encoding for a character in the expression, providing a double delimiter in the expression, providing all delimiters in the expression, providing no values in the expression, providing a single character and delimiter-value pair in the expression, providing an unbalanced pair in the expression, replacing a delimiter with random ranges that cover the value of the delimiter, providing an alternative encoding to encode a transaction field with a character that is equal in nature and different in representation, providing a prefixed escape in the expression, providing ghost character encoding in the expression, controlling a user identity which is a field indicating resource name or user identity, injecting unfiltered metacharacters to a secondary process, providing extraneous meta-characters for causing misclassification, or parsing out a delimiter to obtain an intermediate representation of the expression, where a

value in the expression is replaced by a buffer function; and

using the expression to form a subsequent expression that can be used by a target system to detect and trigger on the network at least one transaction that matches the expression.

Claim 2 (currently amended): An article of manufacture, comprising:

a ~~machine-readable~~ computer-readable medium having stored thereon instructions to:

interject a pattern with fault-inducing sub-fields, where the pattern is an expression including a literal string and a wildcard character class, wherein interjecting the pattern comprises at least one of the following: providing alternative character encoding for a character in the expression, providing a double delimiter in the expression, providing all delimiters in the expression, providing no values in the expression, providing a single character and delimiter-value pair in the expression, providing an unbalanced pair in the expression, replacing a delimiter with random ranges that cover the value of the delimiter, providing an alternative encoding to encode a transaction field with a character that is equal in nature and different in representation, providing a prefixed escape in the expression, providing ghost character encoding in the expression, controlling a user identity which is a field indicating resource name or user identity, injecting unfiltered metacharacters to a secondary process, providing extraneous meta-characters for causing

misclassification, or parsing out a delimiter to obtain an intermediate representation of the expression, where a value in the expression is replaced by a buffer function; and

use the expression to form a subsequent expression that can be used by a target system to detect and trigger on the network at least one transaction that matches the expression.

Claim 3 (currently amended): An apparatus for creating a fault-inducing transaction representation in a network, the apparatus comprising:

means for interjecting a pattern with fault-inducing sub-fields, where the pattern is an expression including a literal string and a wildcard character class, wherein interjecting the pattern comprises at least one of the following: providing alternative character encoding for a character in the expression, providing a double delimiter in the expression, providing all delimiters in the expression, providing no values in the expression, providing a single character and delimiter-value pair in the expression, providing an unbalanced pair in the expression, replacing a delimiter with random ranges that cover the value of the delimiter, providing an alternative encoding to encode a transaction field with a character that is equal in nature and different in representation, providing a prefixed escape in the expression, providing ghost character encoding in the expression, controlling a user identity which is a field indicating resource name or user identity, injecting unfiltered metacharacters to a

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secondary process, providing extraneous meta-characters for causing misclassification, or parsing out a delimiter to obtain an intermediate representation of the expression, where a value in the expression is replaced by a buffer function; and

coupled to the interjecting means, means for using the expression to form a subsequent expression that can be used by a target system to detect and trigger on the network at least one transaction that matches the expression.

Claim 4 (currently amended): A method of testing a target in a network by fault injection, the method comprising:

defining a transaction baseline;

modifying at least one of an order and a structure of the transaction baseline to obtain a modified transaction with malformed grammar, wherein the modifying step comprises at least one of the following: providing alternative character encoding for a character in the transaction baseline, creating a double delimiter in the transaction baseline, providing all delimiters in the transaction baseline, providing no values in the transaction baseline, providing a single character and delimiter-value pair at a repeated large buffer in the transaction baseline, providing an unbalanced pair in the transaction baseline, replacing a delimiter with random ranges that cover the value of the delimiter, providing an alternative encoding to encode a transaction field with a character that is equal in nature and different in representation, providing a prefixed escape in the transaction baseline, providing ghost character encoding in

the transaction baseline, controlling the user identity
which is a field indicating resource name or user identity,
injecting unfiltered metacharacters to a secondary process,
providing extraneous meta-characters for causing
misclassification, or parsing out a delimiter to obtain an
intermediate representation of the transaction baseline,
where a value in the transaction baseline is replaced by a
buffer function; and

transmitting the modified transaction to a target.

Claim 5 (Original): The method of claim 4, further
comprising:

after transmitting the modified transaction, receiving
a feedback from the target to determine fault occurrence.

Claim 6 (cancelled)

Claim 7 (Original): The method of claim 4 wherein the
modifying step comprises:

removing a field from the transaction.

Claim 8 (Original): The method of claim 4 wherein the
modifying step comprises:

duplicating a field in the transaction.

Claims 9-16 (cancelled)

Claim 17 (Original): The method of claim 4 wherein the
modifying step comprises:

using value injection to alter an input field in the
transaction.

Claim 18 (cancelled)

Claim 19 (Original): The method of claim 4 wherein the
modifying step comprises:

determining a value injection based on numerical
ranges of the input field content.

Claims 20-23 (cancelled)

Claim 24 (amended): A method of testing a target on a
network by fault injection, the method comprising:

defining a transaction baseline; and

modifying an input field in the transaction baseline
to obtain a modified transaction with malformed value,
wherein modifying the input field comprises at least one of
the following: providing alternative character encoding for
a character in the transaction baseline, creating a double
delimiter in the transaction baseline, providing all
delimiters in the transaction baseline, providing no values
in the transaction baseline, providing a single character
and delimiter-value pair at a repeated large buffer in the
transaction baseline, providing an unbalanced pair in the
transaction baseline, replacing a delimiter with random
ranges that cover the value of the delimiter, providing an
alternative encoding to encode a transaction field with a
character that is equal in nature and different in
representation, providing a prefixed escape in the

transaction baseline, providing ghost character encoding in the transaction baseline, controlling the user identity which is a field indicating resource name or user identity, injecting unfiltered metacharacters to a secondary process, providing extraneous meta-characters for causing misclassification, or parsing out a delimiter to obtain an intermediate representation of the transaction baseline, where a value in the transaction baseline is replaced by a buffer function; and

~~transmitting the modified transaction to a target~~.

Claim 25 (currently amended): The method of claim 24, further comprising:

after transmitting the modified transaction, receiving a feedback from ~~the~~ a target to determine fault occurrence.

Claim 26 (cancelled)

Claim 27 (currently amended): A method of testing a target in a network by fault injection, the method comprising:

defining a transaction baseline; and

modifying the transaction baseline to obtain a modified transaction ~~with an extraneous metacharacter~~, wherein the modified transaction comprises at least one of: an alternative character encoding for a character in the transaction baseline, a double delimiter in the transaction baseline, all delimiters in the transaction baseline, fields with no values in the transaction baseline, a single character and delimiter-value pair at a repeated large buffer in the transaction baseline, an unbalanced pair in

the transaction baseline, random ranges that cover a value
of a delimiter, an alternative encoding to encode a
transaction field with a character that is equal in nature
and different in representation, a prefixed escape in the
transaction baseline, ghost character encoding in the
transaction baseline, a user identity which is a field
indicating resource name or user identity, unfiltered
metacharacters injected to a secondary process, extraneous
meta-characters for causing misclassification, or a
delimiter that is parsed to obtain an intermediate
representation of the transaction baseline, where a value
in the transaction baseline is replaced by a buffer
function; and

~~transmitting the modified transaction to a target~~.

Claim 28 (currently amended): An apparatus for testing a
target in a network by fault injection, the apparatus
comprising:

a driver configured to generate patterns, where a
pattern can generate a plurality of packets for
transmission to the target, the pattern being represented
by an expression with a literal string and a wild character
class, wherein the driver modifies the expression by
performing at least one of the following: providing
alternative character encoding for a character in the
expression, providing a double delimiter in the expression,
providing all delimiters in the expression, providing no
values in the expression, providing a single character and
delimiter-value pair in the expression, providing an
unbalanced pair in the expression, replacing a delimiter

with random ranges that cover the value of the delimiter, providing an alternative encoding to encode a transaction field with a character that is equal in nature and different in representation, providing a prefixed escape in the expression, providing ghost character encoding in the expression, controlling a user identity which is a field indicating resource name or user identity, injecting unfiltered metacharacters to a secondary process, providing extraneous meta-characters for causing misclassification, or parsing out a delimiter to obtain an intermediate representation of the expression, where a value in the expression is replaced by a buffer function; and

a network interface coupled to the driver and configured to transmit and receive network traffic.

Claim 29 (new): An apparatus for testing a target on a network by fault injection, the apparatus comprising:

means for defining a transaction baseline; and

means for modifying an input field in the transaction baseline to obtain a modified transaction with malformed value, wherein modifying the input field comprises at least one of the following: providing alternative character encoding for a character in the transaction baseline, creating a double delimiter in the transaction baseline, providing all delimiters in the transaction baseline, providing no values in the transaction baseline, providing a single character and delimiter-value pair at a repeated large buffer in the transaction baseline, providing an unbalanced pair in the transaction baseline, replacing a delimiter with random ranges that cover the value of the

delimiter, providing an alternative encoding to encode a transaction field with a character that is equal in nature and different in representation, providing a prefixed escape in the transaction baseline, providing ghost character encoding in the transaction baseline, controlling the user identity which is a field indicating resource name or user identity, injecting unfiltered metacharacters to a secondary process, providing extraneous meta-characters for causing misclassification, or parsing out a delimiter to obtain an intermediate representation of the transaction baseline, where a value in the transaction baseline is replaced by a buffer function.

Claim 30 (new): The method of claim 24, further comprising:
    transmitting the modified transaction to a target.

Claim 31 (new): The method of claim 24, further comprising:
    removing a field from the transaction baseline.

Claim 32 (new): The method of claim 24, further comprising:
    duplicating a field in the transaction baseline.

Claim 33 (new): The method of claim 24, further comprising:
    using value injection to alter an input field in the transaction baseline.

Claim 34 (new): The method of claim 24, further comprising:
    determining a value injection based on numerical ranges of content in an input field.

Claim 35 (new): The apparatus of claim 28, wherein the driver modifies the expression by removing a field from the transaction baseline.

Claim 36 (new): The apparatus of claim 28, wherein the driver modifies the expression by duplicating a field in the transaction baseline.

Claim 37 (new): The apparatus of claim 28, wherein the driver modifies the expression by using value injection to alter an input field in the transaction baseline.

Claim 38 (new): The apparatus of claim 28, wherein the driver modifies the expression by determining a value injection based on numerical ranges of content in an input field.

Claim 39 (new): A method of testing a target in a network by fault injection, the method comprising:

defining a transaction baseline; and

modifying the transaction baseline to obtain a modified transaction, wherein the modified transaction comprises a content that is selected from the group consisting of: an alternative character encoding for a character in the transaction baseline, a double delimiter in the transaction baseline, all delimiters in the transaction baseline, fields with no values in the transaction baseline, a single character and delimiter-value pair at a repeated large buffer in the transaction baseline, an unbalanced pair in the transaction baseline,

random ranges that cover a value of a delimiter, an alternative encoding to encode a transaction field with a character that is equal in nature and different in representation, a prefixed escape in the transaction baseline, ghost character encoding in the transaction baseline, a user identity which is a field indicating resource name or user identity, unfiltered metacharacters injected to a secondary process, extraneous meta-characters for causing misclassification, or a delimiter that is parsed to obtain an intermediate representation of the transaction baseline, where a value in the transaction baseline is replaced by a buffer function.

Claim 40 (new): The method of claim 39, further comprising: transmitting the modified transaction to a target.

Claim 41 (new): The method of claim 39, wherein the content further comprises a field with content from the transaction baseline.

Claim 42 (new): The method of claim 39, wherein the content further comprises a duplicated content in the transaction baseline.

Claim 43 (new): The method of claim 39, further comprising: using value injection to alter an input field in the transaction baseline.

Claim 44 (new): The method of claim 39, further comprising:

determining a value injection based on numerical ranges of content in an input field.

Claim 45 (new): A method of generating patterns for testing a target in a network, the method comprising:

generating a pattern for testing the target, where the pattern comprises at least one of the following: an iterating function, a parent pattern and child pattern relationship, a 3-way handshake checkpoint function where the pattern reacts based upon a response from the target, an auto-TCP sequence function which maintains a sequence count of child packets in the pattern, or buffer test function for performing a buffer overflow test.

Claim 46 (new): An apparatus for generating patterns for testing a target in a network, the apparatus comprising:

a driver configured to generating a pattern for testing the target, where the pattern comprises at least one of the following: an iterating function, a parent pattern and child pattern relationship, a 3-way handshake checkpoint function where the pattern reacts based upon a response from the target, an auto-TCP sequence function which maintains a sequence count of child packets in the pattern, or buffer test function for performing a buffer overflow test.